

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (withdrawn) A semiconductor device having a non-volatile memory transistor, the semiconductor device comprising:
an interlayer dielectric layer provided on a semiconductor layer in which the non-volatile memory transistor is formed,
wherein the interlayer dielectric layer is an insulation layer for electrically isolating the non-volatile memory transistor from a conductive layer formed over the semiconductor layer, and the interlayer dielectric layer includes a layer containing nitride.
2. (withdrawn) A semiconductor device according to claim 1, wherein the layer containing nitride is provided as a lowermost layer of the interlayer dielectric layer.
3. (withdrawn) A semiconductor device according to claim 1, wherein the layer containing nitride is provided as an uppermost layer of the interlayer dielectric layer.
4. (withdrawn) A semiconductor device according to claim 1, wherein the layer containing nitride is provided as an intermediate layer of the interlayer dielectric layer.

5. (withdrawn) A semiconductor device according to claim 1, wherein the nitride is at least one of silicon nitride and silicon oxide nitride.

6. (withdrawn) A semiconductor device according to claim 1, wherein the non-volatile memory transistor includes:

a floating gate disposed over the semiconductor layer through a gate dielectric layer;

a tunneling dielectric layer that contacts at least a part of the floating gate;

a control gate that is formed over the tunneling dielectric layer; and source region and drain region formed in the semiconductor layer.

7. (withdrawn) A semiconductor device according to claim 1, wherein the non-volatile memory transistor includes:

a floating gate disposed over the semiconductor layer through a gate dielectric layer;

a control gate disposed over the floating gate through an intermediate dielectric layer; and

source region and drain region formed in the semiconductor layer.

8. (currently amended) A semiconductor device having a non-volatile memory transistor formed on a semiconductor layer, the semiconductor device comprising:

an interlayer dielectric layer provided over the semiconductor layer and the non-volatile memory transistor with the interlayer dielectric layer being in direct contact with a component of the non-volatile memory transistor,

a wiring layer provided on and in direct contact with the interlayer dielectric layer, wherein the interlayer dielectric layer includes an a first oxide film provided as a lowermost layer of the interlayer dielectric layer, and a layer containing nitride provided on and in direct contact with the first oxide film, and a second oxide film provided on and in direct contact with the layer containing nitride.

9. (currently amended) A semiconductor device according to claim 8, wherein the first oxide film has a thickness of 10 – 80nm.

10. (currently amended) A semiconductor device according to claim 8, wherein the first oxide film has a thickness of 30 – 70nm.

11. (currently amended) A semiconductor device according to claim 8, wherein the first oxide film is an oxide film that is formed by a reduced pressure CVD method using TEOS.

12-21. (cancelled)

22. (new) A semiconductor device having a non-volatile memory transistor formed on a semiconductor layer, the semiconductor device comprising:

an interlayer dielectric layer provided over the semiconductor layer and the non-volatile memory transistor,

a wiring layer provided on and in direct contact with the interlayer dielectric layer,

wherein the interlayer dielectric layer comprises a first oxide film provided as a lowermost layer of the interlayer dielectric layer, a layer containing nitride provided on and in direct contact with the first oxide film, and a second oxide film provided on and in direct contact with the layer containing nitride.

23. (new) A semiconductor device according to Claim 22, wherein the first oxide film has a thickness of 10-80nm.

24. (new) A semiconductor device according to Claim 22, wherein the first oxide film has a thickness of 30-70nm.

25. (new) A semiconductor device according to Claim 22, wherein the first oxide film is an oxide film that is formed by a reduced pressure CVD method using TEOS.